

Notice of Allowability	Application No.	Applicant(s)	
	10/797,489	TURNER, MARK A.	
	Examiner	Art Unit	
	David D. Le	3681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment after final filed on 26 October 2006.
2. ☒ The allowed claim(s) is/are 1-5, 7-19, 21-28 and 48.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
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DETAILED ACTION

1. This is the third Office action on the merits of Application No. 10/797,489, filed on 10 March 2004. Claims 1-5, 7-19, 21-28 and 48 are pending.

Documents

2. The following documents have been received and filed as part of the patent application:
- Power of Attorney, received on 05/09/05
 - Replacement drawing, received on 05/02/06

EXAMINER'S AMENDMENT

3. An extension of time under 37 CFR 1.136(a) is required in order to make an examiner's amendment which places this application in condition for allowance. During a telephone conversation conducted on 13 November 2006, applicant's attorney requested an extension of time for 1 MONTH(S) and authorized the Director to charge Deposit Account No. 502806 the required fee of \$120.00 for this extension and authorized the following examiner's amendment. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Claim 48:

- Line 3, "at least one of" has been deleted.

- Line 4, “if the first drive assembly is actuated:” has been deleted.
- Line 10, “if the second drive assembly is actuated:” has been deleted.

Allowable Subject Matter

4. Claims 1-5, 7-19, 21-28 and 48 are allowed.
5. The following is an examiner’s statement of reasons for allowance:

Claim 1:

The prior art of record fails to show or render obvious an apparatus for actuating a control surface comprising a first spur gear, a first drive assembly, a second spur gear, a second drive assembly, a gear assembly, a first screw, a first gear, a thrust nut, a second gear, a second screw, and a translation nut, as recited in the claim; specifically, wherein the thrust nut is mounted to the first gear and threadedly engaged with the first screw, the second screw mounted to the second gear and mechanically coupled with the thrust nut such that the second screw and the thrust nut rotate independently and translations of the thrust nut are transmitted to the second screw, and the translation nut is threadedly engaged with the second screw and capable of being mechanically coupled with the control surface.

Claim 15:

The prior art of record fails to show or render obvious a vehicle comprising a control surface, an apparatus for actuating the control surface, a first spur gear, a first

drive assembly, a second spur gear, a second drive assembly, a gear assembly, a first screw, a first gear, a thrust nut, a second gear, a second screw, and a translation nut, as recited in the claim; specifically, wherein the thrust nut is mounted to the first gear and threadedly engaged with the first screw, the second screw mounted to the second gear and mechanically coupled with the thrust nut such that the second screw and the thrust nut rotate independently and translations of the thrust nut are transmitted to the second screw, and the translation nut is threadedly engaged with the second screw and capable of being mechanically coupled with the control surface.

Claim 48:

The prior art of record fails to show or render obvious a method for actuating a control surface comprising the steps, as recited in the claim; specifically wherein the method includes the steps of translating a thrust nut along a first screw with the first gear, transmitting the translation of the thrust nut to a second screw such that the second screw and the thrust nut rotate independently, rotating a second screw with the second gear, and moving a translation nut with the second screw to actuate the control surface.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 571-272-7092. The examiner can normally be reached on Mon-Fri (0700-1530).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



David D. Le
Examiner
Art Unit 3681
11/13/06

ddl